Michigan Sports Analytics Symposium

6:00 PM - 8:00 PM
Thursday, January 18
Ehrlicher Room, North Quad

Description: The Michigan Sports Analytics Society invites you to the Michigan Sports Analytics Symposium at the University of Michigan. The event will feature presentations from students currently participating in sports analytics research projects and faculty with significant interest in sports analytics. Come to learn about sports analytics and see how you can get involved in this rapidly growing topic at the University of Michigan.

Speakers/Presentations

- **6:00 - 6:05: Welcome & Intro**
- **6:05 - 6:20: Competitions + Groups to get involved**
    - **Jonathan Stroud (Student, Computer Science), NFL Free Agency Prediction Challenge**
    - **Josh Kremers (Student, Data Science), NBA Hackathon**
- **6:20 - 7:10: Student Projects**
    - ***Michigan Basketball Analytics Project***
        - **Description: *A summary regarding what we have been working on this past semester and some of the conclusions we have come to when working with the Men's Basketball team, Kinduct, and Catapult.***
    - **Adam Rauh (Student, Data Science), Combining Data Science and Sports Science for Game Analysis**
        - **Description: *In this study, we are evaluating the possibilities of combining data from the "InStat Football" service with***

physiologic and biomechanical data collected with the "Catapult Sports" system for the Women's Soccer Team. This combination allows for a "data science" approach to evaluating statistics for individual players such as pass completion, tackles, and goals, through a "sports science" lens. We were able to demonstrate that many questions about game situations, strategies, and plays can be quantified and explored in ways not previously possible.

- **Rohit Mogalayapalli (Student, Computer Science), Data Driven Storytelling: Using Wearables**
  - **Description:** ***Taking player tracking data with high dimensionality and interpreting it in an easy and meaningful way for Players, Coaches, and Trainers to universally understand.***
- **Michael Lee (Student, Movement Science), Web-scraped data to estimate season continuity and injury among NCAA Track and Field teams**
  - **Description:** ***This project is based out of the Michigan Performance Research Laboratory. Our interests revolves around athletic injury and determining if there are differences within each divisional conference. Using publicly available data we found that differences between conferences exist. We used multiple languages to scrape and analyze the data.***

- **7:10 - 8:00: Faculty Presentations**
  - **Lew Porchiazzo (Head Strength & Conditioning Coach for Olympic Sports), Integrating Technology and Data to Fill the Gaps**
    - **Description:** ***Discuss how technology and data can help paint a more holistic picture of physical demand on athletes and subsequent training adjustments.***
  - **Thomas Finholt (Dean and Professor, School of Information, University of Michigan), The State of Sports Analytics Education in Research-Intensive Universities**
    - **Description:** ***In my talk I will summarize the current state of sports analytics instruction in research-intensive universities. The summary will include information on the number of such programs, the courses of study, and outcomes for students. I will conclude with a description of a proposed sports analytics minor at UM and steps required to realize this vision.***
  - **Jenna Wiens (Morris Wellman Assistant Professor of Computer Science and Engineering at the University of Michigan), The Best Defense is a Good...Using Machine Learning to Analyze Defensive Strategies in the NBA**

        - **Description:** ***In basketball, most defensive metrics focus on discrete events (e.g., blocked shots). However, such metrics comprise only a small portion of play. To fully characterize good defensive play, one must go beyond standard box score statistics and consider player movements on the court. To this end, we have developed machine learning tools to analyze player trajectories in the NBA. These tools enable in-depth analyses of different aspects of defense. In this talk, I will give an overview of our work on analyzing ball screen defense and double teaming in the NBA.***
- **8:00 Wrap-Up**